

REMARKS

Claims 1-28 are pending in the application. Claims 16-24 have been withdrawn. Claims 1, 10, 13 and 25 are independent claims. No new matter has been added by this amendment.

Applicants respectfully submit that the present application is in condition for allowance.

Accordingly, reconsideration and allowance of the present application are respectfully requested.

Claim Objections

The Office Action objects to claims 16-24 because of informalities. The Office Action states that claims 16-24 should be marked as cancelled.

Applicants respectfully submit that claims 16-24 are currently withdrawn but not cancelled.

Applicants respectfully request that any requirement to cancel claims 16-24 be held in abeyance until the pending claims are allowed.

Claim Rejections – 35 USC § 103

The Office Action rejects claims 1, 7-9, 10 and 13 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,236,491 (Tsao et al.) in view of U.S. Patent Application Publication No. 2003/0204653 (Katayama).

Reconsideration and withdrawal of the rejections are respectfully requested.

Claim 1

Claim 1 recites a method, comprising: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold. (emphasis added).

Neither Tsao et al., nor Katayama, nor any combination thereof proposed in the Office Action teaches or suggests the method of claim 1.

Tsao et al. disclose a method and apparatus for scheduling for packet-switched networks (title). According to Tsao et al. a method for scheduling a packet, comprises: receiving a packet;

identifying a flow for the packet; classifying the packet based on the identified flow; and buffering the packet in one of a plurality of queues based on the classification of the packet (col. 2, lines 1-4). FIG. 1 illustrates a node 100 utilizing a Pre-Order Deficit Round Robin (PDRR) architecture (col. 2, lines 40-42). Node 100 comprises an input port 102, a processor 104, a packet arrival module 106, a pre-order queuing module 108, a packet departure module 110, and an output port 122 (col. 3, lines 17-19). Packet arrival module 106 receives packets from input port 102, identifies each packet's flow, and places each packet in its corresponding flow queue (col. 3, lines 33-35). Packet arrival module 106 determines the number n and identification of flow queues 112₁ - 112 _{n} based upon information received from packet departure module 110 via path 124 (col. 3, lines 35-38). Packet arrival module 106 may also provide notification, e.g., to packet departure module 110 via processor 104, when a packet arrives for a new flow to be serviced by node 100 (col. 3, lines 38-41).

Thus, Tsao et al. receive a packet.

However, at the very least, and as stated in the Office Action (Office Action, page 3, lines 8-10), Tsao et al. do not teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if **the number of transmit buffers** does not exceed a pre-determined threshold.

Katayama disclose a network switching device and method (title). As illustrated in FIG. 1, the network switching device comprises a buffer 1, a priority determination circuit 2, an amount-of-use detection circuit 3, and a data transfer circuit 4 (para 0039). A data transfer circuit 4 acquires the determination results of the priority determination circuit 2 and the amount-of-use detection circuit 3, and stores received data in the buffer 1 when the amount of current use of the buffer 1 does not exceed a threshold value associated with a priority of the received data (para 0044). That is, in the example of FIG. 1, only the received data item 5c having the priority C is stored in the buffer 1, and the received data items 5a and 5b having the priorities A and B are discarded without being stored in the buffer 1. (para 0044).

Thus, contrary to the assertion in the Office Action (Office Action, page 3, lines 11-18), the determination as to whether to store the received data in buffer 1 appears related to whether the amount of current use of buffer 1 (without the received data) exceeds a threshold value associated with a priority of the received data.

The determination does not appear related to a number of transmit buffers to be associated with the received data.

Consequently, even if the received data constitutes a type of packet, as appears asserted by the Office Action, Katayama does not teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers (i.e., the number of transmit buffers to be associated with the packet) does not exceed a pre-determined threshold.

For at least the reasons above, neither Tsao et al., nor Katayama, nor any combination thereof proposed in the Office Action, teaches or suggests a method, comprising: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold, as recited in claim 1. (emphasis added).

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 10

Claim 10 recites an article, comprising: a storage medium having stored thereon instructions that when executed by a machine result in the following: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

Neither Tsao et al., nor Katayama, nor any combination thereof proposed in the Office Action teaches or suggests the article of claim 10.

At the very least, Tsao et al. do not teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

As with Tsao et al., and at the very least, Katayama do not teach or suggest arranging for the packet to be transmitted through a port without storing the packet

identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

For at least the reasons above, neither Tsao et al., nor Katayama, nor any combination thereof proposed in the Office Action, teaches or suggests an article, comprising: a storage medium having stored thereon instructions that when executed by a machine result in the following: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold, as recited in claim 10.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 13

Claim 13 recites an apparatus, comprising: an input path to receive a request to transmit a packet associated with a packet identifier; a local memory portion; and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

Neither Tsao et al., nor Katayama, nor any combination thereof proposed in the Office Action, teaches or suggests the apparatus of claim 13.

At the very least, neither Tsao et al., nor Katayama, nor any combination thereof proposed in the Office Action teach or suggest an apparatus, comprising: a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

For at least the reasons above, neither Tsao et al., nor Katayama, nor any combination thereof proposed in the Office Action, teaches or suggests an apparatus, comprising: an input path to receive a request to transmit a packet associated with a packet identifier; a local memory portion; and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit

buffers to be associated with the packet does not exceed a pre-determined threshold, as recited in claim 13.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 25

Claim 25 recites a system, comprising: a backplane; a first line card connected to the backplane; and a second line card connected to the backplane, the second line card including a processing element having: an input path to receive a request to transmit a packet associated with a packet identifier, a local memory portion, and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

Neither Marshall et al., nor Katayama, nor any combination thereof proposed in the Office Action, teaches or suggests the system of claim 25.

Marshall et al. disclose a programmable packet classification system using an array of uniform content-addressable memories (title).

At the very least, and as stated in the Office Action, Marshall et al. do not teach or suggest an apparatus, comprising: a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

As with Marshall et al. and at the very least, Katayama do not teach or suggest an apparatus, comprising: a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

For at least the reasons above, neither Marshall et al., nor Katayama, nor any combination thereof proposed in the Office Action, teaches or suggests a system, comprising: a backplane; a first line card connected to the backplane; and a second line card connected to the backplane, the second line card including a processing element having: an input path to receive a request to transmit a packet associated with a packet identifier, a local memory portion, and a

processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold., as recited in claim 25.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Dependent claims

Claims 2-9 and 28 depend from independent claim 1 and therefore should be allowed for at least the reasons set forth above with respect to independent claim 1.

Claims 11-12, 14-15 and 26-27 depend from independent claims 10, 13 and 25, respectively, and therefore should be allowed for at least the reasons set forth above with respect to independent claims 10, 13 and 25, respectively.

CONCLUSION

For at least the reasons set forth above, Applicants respectfully submit that the present application is in condition for allowance. Accordingly, reconsideration and allowance of the present application are respectfully requested.

Because the reasons set forth above are sufficient to overcome the rejections set forth in the outstanding Office Action, Applicants do not address some of the assertions set forth therein and/or other possible reasons for overcoming the rejections. Nonetheless, Applicants reserve the right to address such assertions and/or to present other possible reasons for overcoming the rejections in any future paper and/or proceeding.

If the Examiner believes that a telephone interview would expedite the prosecution of this application in any way, the Examiner is cordially requested to contact the undersigned via telephone at (203) 972-0006, ext. 1014.

Respectfully submitted,

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